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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,734	09/30/2004	Lee George LABORCZFALVI	2006579-0244 (CXT-110)	5733

69665 7590 02/26/2009

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EXAMINER	
WEI, ZHENG	

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
02/26/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,734	LABORCZFALVI ET AL.	
	Examiner	Art Unit	
	ZHENG WEI	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Remarks

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2008 has been entered.
2. This office action is in response to the amendment filed on 12/12/2008.
3. Claim 17 has been cancelled.
4. Claims 1-14, 18 and 19 have been amended.
5. Claims 1-16 and 18-22 remain pending and have been examined.

Response to Arguments

6. Applicant's arguments filed on 05/14/2008, in particular on pages 7-9, have been fully considered but they are not persuasive. For example:
   - At page 6, last paragraph, Applicants submit that "Demsey fails to teach or suggest a 'rule action specifying remap' associated with the virtual name as required by independent Claims 1 and 14. The table described in Demsey is not used to determine that a rule action that specifies remap is associated with the virtual name.". However, Examiner's position is that the recited limitation "rule action specifying remap" as the Applicants argued can be

reasonable interpreted as a query action that queries the rule/table specifying the relationship information related/associated with the virtual name. Because the claim language merely discloses “a rule action specifying remap is associated with the virtual name”, but does not define the limitation for the term “remap” and its relationship between “virtual name” and “literal name” of the native resource. Therefore, as Demsey disclosed, the Native Resource Handle Tables (Fig.2, 114) specifies the mapping/relationship for the handles and native resources including information/reference, name and address (see for example, Fig.3, steps 306, 310 “Put Reference To Requested Native Resource In Obj(i): Obj(i) Allocates Requested Native Resource Access; Assign Name and Address for Requested Native Resource to Obj(i) Entry in Native Resource Handle Table”) and said Native Resource Handle Table is used to check/review for availability of handle for requested Native Resource (see for example, Fig.3, step 306, "Review Native Resource Handle Tables For Availability of Handle For Requested Native Resource"). Therefore, Demsey still teaches the limitation as the Applicants argued

- Examiner’s interprets the current invention as a solution to gain access controls for native resource of operation system, especially for allowing installation and execution of application programs that are incompatible with each other and incompatible versions of the same application program, on a single computer (see for example, paragraph [0006]) by solving the native resource access conflict using rule action (Fig.3A, step 305, ignore, redirect,

isolate), e.g. modify/replace the virtual name to literal name (remap) or use virtual name as the literal name (see for example, paragraph [0094]). Therefore, merely specifying the limitation "a rule action specifying remap" without further defining what the "map" or "remap" is and what/how to "remap" virtual name to, it could be reasonable interpreted as specifying memory address related to the native resource or handle related to the native resource as Demsey disclosed. Moreover, it should be noted that claim language merely specifies "issuing to the operating system a request to access the native resource" and "determined literal name for the native resource", but does not disclose anything about where/when/how to use the "determined literal name" in the request issuing to the operating system. Thus, based on the reasonable interpretation of the claims language of claims 1 and 14, Demsey still teaches the limitation as the Applicants argued.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

Claim 1 recites the limitation "the operation system" in line 10. There is insufficient antecedent basis for this limitation in the claim. For the purpose of compact prosecution, the Examiner treats "native resources" in line 1 as --native resources provided by an operation system-- as also disclosed in specification paragraph [0002]. Moreover, Examiner treats "a native resource" in line 3, as --one of the native resources--

Claims 2-13:

Claims 2-13 are dependent claims. Therefore, they are also rejected for the same reason.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-5 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demsey (Demsey et al., US 7,203,941) in view of Goldberg (Robert Goldberg, US 4,253,145)

Claim 1:

Demsey discloses a method for virtualizing access to native resources provided by an operating system, the method comprising:

- receiving a request to access a native resource from a process executing in the context of an isolation environment including an application isolation layer (managed code portion) and a user isolation layer (user code), the request including a virtual name for the native resource (see for example, Fig.3, step 300, "Application Executing In Virtual Machine makes A Request in Managed Code For Native Resource Access"; also see Fig.1 User code, managed code portion and related text) ;
- determining that a rule action specifying remap is associated with the virtual name included in the received request; forming a literal name for the native resource, the literal name identifying a literal native resource of the same type as the requested resource (see for example, Fig.1, item 108, 114 and 726 "Operating System", "Native Resource Handle Table", "Resource Allocation and Collection Modules(s)" and related text; also see Fig.2, "Native Resource Handle Tables"; further see Fig.3, steps 304-310 and related text) ; and
- issuing to the operating system a request to access the native resource, the request including the determined literal name for the native resource (see for example, Fig.1, item 726 "Operating System", item 114 "Native Resource Handle Table" and item 702 "hardware"; also see Fig.3, steps 312-314, "Access for requested Native Resource…").

Demsey also discloses determining a rule action to use handler table to allocate or reallocate (mapping) when executing application requests a native resource (see for example, col.4, lines 11-39)

But does not explicitly disclose detailed information about a rule action of remap. However, Goldberg in the same analogous art of supporting recursive virtual computer system, discloses using Ø-map and f-map to map virtual resource name and real resource name (see for example, Fig.6a and related text). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Goldberg's method to validate and remap a virtual name with a real resource name. One would have been motivated to do so to support several copies of the basic machine interface, and then different privileged software could be run on each of the additional basic machine interfaces simultaneously as suggested by Goldberg (see for example, col.2, lines 37-45)

Claim 2:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein receiving a request to access a native resource, comprises receiving a request from a process executing in the context of an isolation environment (virtual environment) to access a named system object, the request including a virtual name for the system object (see for example, Fig.3, step 300 and related text).

Claim 3:

Demsey further discloses the method of claim 2 wherein forming a literal name further comprises:

determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)…"); and using the determined rule to form a literal name for the system object that identifies a literal system object (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 4:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein receiving a request to access a native resource comprises receiving a request from a process executing in the context of an isolation environment to access a file system element, the request including a virtual name for the file system element Fig.3, step 300, "Application Executing in Virtual Machine Makes A Request in Managed Code for Native Resource Access" and related text).

Claim 5:

Demsey further discloses the method of claim 4 wherein forming a literal name further comprises:

(c-1) determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)…");; and

(c-2) using the determined rule to form a literal name for the file system element that identifies a literal file system element (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 8:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein receiving a request to access a native resource comprises receiving a request from a process executing in the context of an isolation environment to access one of a window and a window class, the request including one of a virtual name for the window and a virtual name for the window class (see for example, Fig.1, item 106, "Base Class Library" and related text).

Claim 9:

Demsey also discloses the method of claim 8 wherein forming a literal name further comprises: determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)…"); and using the determined rule to form a literal name for the one of a virtual name for the window and a virtual name for the window class that

identifies one of a literal window name and a literal window class (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 10:

Demsey and Goldberg disclose the method of claim 1, Goldberg discloses wherein forming a literal name further comprises: accessing a rules engine to determine a rule associated with the virtual name received in the request (see for example, Fig.6a, step 601 and related text); and forming a literal name for the native resource responsive to the determined rule, the formed literal name identifying a literal native resource of the same type as the requested resource (see for example, steps 601-611, "R is the Real Resource" and related text) .

Claim 11:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses the method comprising receiving a handle from the operating system identifying the accessed object (see for example, Fig.3, step 306 "Review Native Resource Handle Tables for availability of Handle for requested Native Resource" and related text) .

Claim 12:

Demsey further discloses the method of claim 11 further comprising transmitting the handle to the process (see for example, Fig.3, step 310, "Assign Name and Address for Requested Native Resource to Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 13:

Demsey and Goldberg disclose the method of claim 1, Goldberg discloses wherein forming a literal name further comprises determining, by the remap rule, the literal name of the native resource for the virtual name of the native resource (see for example, Fig.6a and related text about "Ø-map" and "f-map").

11. Claims 6-7, 14-16 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demsey (Demsey et al., US 7,203,941) in view of Goldberg (Robert Goldberg, US 4,253,145) in further view of Schmidt (Brian Keith Schmidt, US 7,206,819)

Claim 6:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein receiving a request to access a native resource comprises receiving a request from a process executing in the context of an isolation environment to access native resource (see for example, Fig.3, step 300, "Application Executing In Virtual Machine makes A Request in Managed Code For Native Resource Access" and related text). But does not explicitly disclose the native resource

includes a registry key and the request including a virtual name for the registry key. However, Schmidt in the same analogous art of method and apparatus for providing virtual namespaces for active computing environments, discloses using virtual name (virtual namespaces) to access registry key (file system) (see for example, col.3, lines 20-30, "The underlying file system is mapped into the compute capsule in a port of the capsule called a 'virtual namespace'). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a virtual name to access native resource including file system/registry key. One would have been motivated to do so to provides a private, customizable view of shared file system as suggested by Schmidt (see for example, col.3, lines 20-22, "using the compute capsule, one embodiment of the present invention provides a private, customizable view of a shred file system…")

Claim 7:

Demsey, Goldberg and Schmidt disclose the method of claim 6, Schmidt further discloses wherein forming a literal name further comprises: determining a rule associated with the virtual name included in the received request (see for example, Figure 6, step 630,"Is capsule naming a resource?" and related text); and using the determined rule to form a literal name for the registry key that identifies a literal registry key (see for example, Figure 6, step 640, "Use translator to translate the named resource in the personal namespace to the

actual physical resource" and related text).

Claims 14-16 and 18-22:

Claims 14-16 and 18-22 are apparatus version for performing the claimed method as in claims 1-13 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above and certainly a computer apparatus would need to run and/or practice such function steps disclosed by reference above. Thus, they also would have been obvious.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-2059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. W./
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192